

hygiene, rendered them relatively insignificant. Further, these reports gave rise to a very considerable polemic, other workers in this field not accepting Thudicum's results, or, *a fortiori*, the theories founded upon them.

In 1871 Dr. Thudicum published conjointly with Dr. Dupré his most copious work, a book of 700 odd pages, on the origin, nature and varieties of wine. His views upon this subject have also not received general acceptance. In 1872 he published a manual of chemical physiology. His last work of note appeared in 1886 and consisted of a treatise on the chemical constitution of the brain.

Although Thudicum's life-study must be regarded as physiological chemistry, he from time to time wrote upon exclusively practical medical subjects, *inter alia* diseases of the nose, the curative value of electricity in medicine, &c., and consistently with this he made and kept together a large medical practice, being successful as a physician and greatly esteemed by his patients.

Thudicum's mind was one of problems, and whenever a problem presented itself to him he did his best—often, it is true, with imperfect methods—to solve it; even if, as in many cases must be admitted, his work has not yielded results of first importance, by his death medical science has lost at least an honest and indefatigable investigator and many men and women a sincere friend.

NOTES.

THE profound grief expressed by the British Association when news of the assassination of the late President of the United States was received, was described in last week's NATURE. We have now received a copy of the letter sent to Mr. Choate, the American Ambassador, by Prof. Rücker, president of the Association, and of the reply. The letter sent was as follows:—"To his Excellency the Hon. J. H. Choate, Ambassador of the United States of America. Sir,—The General Committee of the British Association for the Advancement of Science, assembled this year in Glasgow, desire me to express to you the horror with which they heard of the attack upon the late President of the United States, and their deep sorrow at his death. On the first day of the meeting in Glasgow the Association telegraphed to Mr. McKinley the assurance of their sympathy and of their earnest hopes for his recovery. These hopes have not been fulfilled, and it is now my sad duty to inform you that the tragic fate of the President of the United States has cast a deep shadow over our meeting. Together with all our fellow countrymen we share in the sorrow of the great sister-nation which you represent; and we desire, through you, to inform the men of science of America that the members of the British Association are bound to them not only by ties of blood, not only by the links which unite all students of Nature, but by the deeper feelings which draw together those who are partners in a common sorrow, and mourn one of the leaders of our common race.—I am, sir, your obedient servant, A. W. Rücker." In reply, the American Ambassador wrote:—"Sir,—I have received with heartfelt gratitude the kind expression of condolence and sympathy at the death of President McKinley which you have forwarded to me on behalf of the General Committee of the British Association for the Advancement of Science. I shall duly advise my Government of its receipt, and it will be highly appreciated by them and by Mrs. McKinley. Your kind message and hundreds of other similar communications from all parts of the British Dominions, carry an assurance of national friendship and goodwill which will be most welcome to the American people.—Yours sincerely, Joseph H. Choate."

MANY men of science will sympathise with Dr. Henry Woodward, F.R.S., at the sad death of his younger son, Mr. Martin

Fountain Woodward, demonstrator in biology, Royal College of Science, South Kensington, London. Mr. Woodward was drowned on the night of September 15 by the capsizing of a boat at Moyard, near Letterfrack, co. Galway, Ireland, where he was in charge of the Marine Biological Laboratory of the Fisheries Board for Ireland, during the long vacation. He was in his thirty-sixth year.

DR. A. C. HADDON, F.R.S., sailed by the *Campania* on September 21 for a ten weeks' visit to the United States, for the purpose of studying the ethnological museums and the methods of instruction and research in ethnology in the States.

THE Swiney lectures this year will be delivered by Dr. J. S. Flett, on the "Geological Evidences of Former Geographical Conditions." The lectures will be delivered at the Victoria and Albert Museum, South Kensington, and will commence on Monday, October 7.

THE programme of the National Home-Reading Union for the thirteenth reading session, 1901-1902, includes nature-study among the subjects upon which advice will be given as to suitable books to read, and helpful articles will be contributed to the Society's magazine. Nature is, of course, the best teacher, but books are valuable in directing attention to her attractions. The address of the Society is Surrey House, Victoria Embankment, London, W.C.

WE regret to record the death of Dr. Edward Waller Claypole, B.A., F.G.S., of the Throop Polytechnic Institute, California, and previously professor at Antioch College, Yellow Springs, and at Buchtel College, Akron, in Ohio. In 1878 he drew attention to the discovery of the oldest known fossil tree from the Upper Silurian of Eaton, Ohio, and he named the specimen *Glyptodendron eatonense*. Since that date he contributed many papers to American journals on the geology and palæontology of the United States, giving a good deal of attention to fossil fishes, but dealing with all branches of geological investigation.

ON Sunday, September 22, a solemn festival was held in the small Swedish island of Hveen. The occasion was the approaching 300th anniversary of the death of Tycho Brahe, the celebrated astronomer, who lived and worked on the island and spent his happiest years there. The festival was held among the few remains of Brahe's once imposing observatory at Uranienborg. The Copenhagen correspondent of the *Times* states that, early in the morning, guests from Denmark and Sweden, including representatives of the Universities, arrived in steamers. Outside the small harbour the Swedish ship *Drott* was at anchor with King Oscar on board. The King landed with the other guests and drove to Uranienborg. After Divine service, conducted by Bishop Billing, of Sweden, Dr. Hillebrandt, of Sweden, delivered a long speech, ending with the following words:—"We congratulate Denmark upon the never-dying memory of this man. This spot is now Swedish; therefore the King of Sweden is here to-day to honour the memory of Denmark's great and noble son." The party then walked through the ruins, which were decorated with the Swedish and Danish flags. The monument of Tycho Brahe, erected by Swedes, was decorated with the Danish colours.

PROF. ENGLER has returned from the Canary Islands with a large collection of plants for the Botanical Garden and Museum at Berlin.

MR. T. MEEHAN has an interesting paper, in the *Proceedings* of the Academy of Natural Sciences of Philadelphia, on the bending of branches in mature trees. The "weeping" habit is, according to him, always the result of diminished vitality in the tree.

IN the *International Bulletin* of the Academy of Sciences of Cracow (1901, No. 4), Godlewski and Polzeniusz have an exhaustive paper (in German) on the intramolecular respiration and production of alcohol in seeds placed in water. They conclude that the chemical processes which take place in the respiration of plants are not uniform, but may vary in different circumstances. In a general way they agree very closely with the process of fermentation.

AN International Conference on Plant Breeding and Hybridisation, to be held at New York in the autumn of 1902, is announced by the Horticultural Society of New York. The provisional programme includes the following papers, among others:—Results of hybridisation and plant breeding in Canada, by Mr. W. Saunders; notes on plant breeding in California, by Mr. E. J. Wickson; plant breeding in New Jersey, by Prof. B. D. Halsted; hybrid plums, by Mr. F. A. Waugh; variations in hybrids not appearing in the first generation, but later, by Mr. E. S. Goff; orchid hybrids, by Mr. Oakes Ames; cytological aspects of hybrids, by Mr. W. A. Cannon, Columbia University, New York City.

THE Bureau of Plant Industry of the United States Department of Agriculture has been entirely reorganised. The work has been divided into various groups, viz.:—Vegetable pathological and physiological investigations; botanical investigations and experiments; pomological investigations; grass and forage-plant investigations; experimental gardens and grounds; Arlington experimental farm; Congressional seed distribution; seed and plant introduction; tea culture experiments. Each class of investigations has its own laboratory, in charge of a skilled expert; the chief of the Bureau and head physiologist and pathologist is Prof. B. T. Galloway.

THE Reale Istituto Veneto announces nine prizes for competition in the faculties of science, letters and arts, for which essays have to be sent in at the close of the years 1901, 1902, 1903. The subjects in science include the projective properties of the two-dimensional algebraic surfaces of n dimensional space, the geophysical and biological characters of the lakes of the Venetian district excluding the Lago di Garda, and the development of the respiratory apparatus of the pulmonate vertebrata.

IN the *Physical Review* for August, Mr. Martin D. Atkins discusses the polarisation and internal resistance of electric cells. The object of the paper, of which a further part is promised, is to examine the two questions, firstly, is the change in the resistance of an electrolytic cell with varying currents a real or an apparent change? and, secondly, does the Wiedemann theory with its derived formulæ satisfy the known conditions and the characteristic curves of this change?

A SERIES of observations on the effects of Becquerel, Röntgen and other rays on the eye are detailed by Messrs. Himstedt and Nagel in the *Berichte* of the Freiburg Naturalists' Society (1901). The fact that such action exists was pointed out by Giesel. In the present investigations it is shown that the effects are in many cases largely due to fluorescence of neighbouring bodies, but that the rays appear to directly affect the rods of the retina. The authors also examined the effects of Röntgen rays and those from an incandescent lamp on the electromotive force set up in the eye of a frog, and the effects of the two kinds of rays are very similar.

WE have received a reprint of M. Guillaume's report communicated last year to the Physical Congress on the transitory deformations of solids. These variations, which differ from those attributed to elasticity or plasticity, are produced either by changes of temperature or by mechanical means, and M. Guillaume has studied them both in glass and in nickel steel. The author finds that the phenomena are governed by com-

paratively simple laws, and he considers that they may probably be attributed to variations in the chemical equilibrium of the molecules. The effects of the deformations in question in connection with the variations in thermometers render this subject one of practical interest.

THE Meteorological Society of Mauritius has commenced the issue of a new series of *Proceedings* and *Transactions*. Vol. i. embraces the five years 1896-1900, and contains a number of useful papers read before the Society—mostly drawn up by the secretary, and relating chiefly to the rainfall and cyclones in the South Indian Ocean. From want of funds and other causes no volume of *Transactions* has appeared since the year 1864, and it is pointed out in the preface to the present volume that whatever the Society may have accomplished in the past has been due, in a great measure, to the untiring energy of the late Dr. Meldrum, who contributed many papers on the law of storms; two of his investigations, on the form of cyclones and an atlas showing the cyclone tracks of the Southern Indian Ocean, have been included among the publications of the Meteorological Council. The present honorary secretary of the Society is Mr. T. F. Claxton.

WE have received a copy of a Report on the meteorological observations made at the Abbassia Observatory, Cairo, during the years 1898 and 1899, together with the mean results derived from the observations of the previous thirty years, prepared under the superintendence of Captain H. G. Lyons, R.E., Director-General of the Survey Department. In 1859, the Khedive ordered the reestablishment of the observatory which had existed from 1845-50 at Bulaq, but had then been closed; the site was not selected until 1865, and the series of regular observations only commenced in 1868. The observatory is situated about three miles north-north-east of Cairo, on the edge of the desert. Meteorological observations have been made every three hours, and magnetic observations have been taken recently, as frequently as the staff available for the purpose could be spared. In 1889, Mr. J. Barois published a very complete discussion of the climate of Cairo, and his tables have been used in the present report. All the observations have been made directly by the observers, but commencing with the year 1900, a complete set of self-recording apparatus has been brought into operation. The volume is accompanied by twenty-two plates showing the mean daily and annual variations of all elements; these greatly enhance the utility of the work, and show at a glance the general results derived from the detailed tabular statements, which are given in French measures. The discussion is a very valuable contribution to meteorological science, and both tables and plates are very carefully prepared and plainly printed.

THE October pilot chart of the North Atlantic and Mediterranean, just issued by the Meteorological Office, shows that during August and the early part of September there were scores of icebergs on the Belle Isle steamer route, from the 48th to the 56th meridian. One observer counted seventy-seven, another one hundred bergs, another described them as innumerable. Great numbers of them were very large, ranging up to a mile long and 200 feet high. No field ice was reported, but there were numerous low flat pieces of ice almost awash and dangerous to navigation. Some bergs were also fallen in with in the neighbourhood of the Flemish Cap, and a solitary one had wandered away to the south-westward of the Bank of Newfoundland to 43° N., 53° W. October witnesses a decided increase in the frequency and the strength of the gales experienced over the northern portion of the Atlantic, and in the remarks on the inset cyclonic type chart it is stated that during some part of the month, usually in about the middle, very severe gales are almost invariably experienced over the British Isles. Some of

the most violent West Indian hurricanes on record have occurred in this month. It has been found convenient to divide the October tropical storms into two classes—those which are experienced during the existence of high barometric pressure over the Eastern States of America, and those when these anticyclones are away to the north or north-west. In the former case the hurricanes originate far out on the ocean, and their centres seldom pass to the westward of the 75th meridian, sometimes, indeed, their point of curvature is even so far to the eastward as 41° W., the mean path curving in 67° W. In the latter case most of the storms are developed about the Gulf of Mexico or the western end of the Caribbean Sea, and in their passage northward and north-eastward cling to the American coast, some a little way inland, others not far out at sea. Unlike the hurricanes of July, August and September, the distinguishing feature of the October ones is that they make comparatively little westing in the early stages of their career, their prevailing tendency being to draw away to the northward almost immediately after their formation, a fact which must be associated with the seasonal change in the disposition of pressure over America. The winds of the Adriatic, including the Bora and the Sirocco, are separately dealt with.

IN the *Zoologist* for September the Editor, Mr. W. L. Distant, inaugurates a discussion on "Animal Sense Perceptions," in the course of which he hints that colour-perception among the lower animals may be very different to our own, and consequently that we should be cautious in regarding many types of animal coloration as protective. Mr. E. Selous, in continuing his observations on the habits of the great crested grebe, hazards some very remarkable speculations.

IT was noted some months ago in this journal that an archaic type of arachnid from Texas belonging to the genus *Koenenia* had been identified with the Sicilian *K. mirabilis*. Fuller comparison has enabled Miss A. Rucker to state in the *American Naturalist* for August that, as might have been expected, it turns out to be distinct. The genus has also been discovered in Siam and Paraguay, so that, like most archaic types, it is probably cosmopolitan. The material now available admits of the definition of the ordinal group to which this strange form belongs.

FROM the Smithsonian Institution we have received a copy of a paper by Messrs. Jordan and Snyder on the apodal or eel-like fishes of Japan, forming *Bulletin* No. 1239 of the U.S. Museum. The authors recognise two ordinal groups of these fishes, the one including the "rice field eels" (Monopterus), and the other the true eels, congers and murænas. Many excellent illustrations are given, and a considerable number of new species described. For one genus the name *Echidna* is employed, and if this usage be correct the egg-laying mammal so designated requires a new title. In the British Museum Catalogue of Marsupials and Monotremes, Mr. O. Thomas definitely stated, however, that, as regards the eel, *Echidna* is a *nomen nudum*. The question should be decided one way or the other.

THE *Biologisches Centralblatt* of September 15 contains an account of Dr. K. Hescheler's investigations into the affinities of *Pleurotomaria*, that handsome genus of gastropod molluscs of which so few survivors now remain. Although the author confirms previous conclusions as to the generally primitive character of this genus, he finds that this does not hold good for all parts of its anatomy, which displays certain evidences of specialisation. In another communication Dr. Walkhoff contrasts the human lower jaw with that of the inferior Primates, in the course of which he points out that the celebrated "Naulette jaw" approximates to the modern type in a much greater degree than is the case with the one from Schipka, which is the oldest at present known.

Two memoirs on development constitute the contents of the September issue of the *Quarterly Journal of Microscopical Science*. In the one Mr. J. G. Kerr continues his account of the developmental history of the South American lung-fish (*Lepidosiren paradoxa*), the first portion of which was published in the *Phil. Trans.* The author finds that both in this genus and the allied African *Protopterus* the early development is remarkably like that of the tailed amphibians, while it also resembles that of the lampreys, and rather less closely that of the so-called ganoid fishes. In the second article—illustrated with five double plates—Mr. R. Evans discusses in great detail the development of the Malayan representatives of *peripatus*, the description of which has been already noticed in these columns.

MR. ARTHUR SMITH, the curator of the Natural History Museum at Grimsby, is making a collection of notes and records of alien plants which occur in Britain, and asks the cooperation of local botanists.

MR. H. L. LYON reprints from the *Minnesota Botanical Studies* a paper entitled "Observations on the Embryology of *Nelumbo*," showing that both in its anatomy and in its embryology *Nelumbo* conforms to the type of the Monocotyledons. He derives from this the conclusion that the order Nymphaeaceæ should be removed from the Dicotyledons and should be placed among Monocotyledons in the series Helobiae.

IT is stated in the January-March 1901 issue of the *Kew Bulletin of Miscellaneous Information*, which has just reached us, that in consequence of the extreme pressure of the demands of important Government work the publication of the *Bulletin* had for a time to be suspended. Its issue has, however, now been resumed. The present number is almost entirely devoted to "a list of the contributors to the Herbarium of the Royal Botanic Gardens, Kew, brought down to December 31, 1899." The volume of the *Bulletin* for 1899 has also reached us. Its contents have been referred to in our "Notes" from time to time as the serial has appeared.

WE have received the Report of the Directors of the Botanical Survey of India for the year 1900-1901, also the Annual Report of the Royal Botanic Garden, Calcutta, for the year 1900-1901, and that of the Government Cinchona Plantation and Factory in Bengal for the year 1899-1900. In his report of the Royal Botanic Garden, Calcutta, the superintendent, Major Prain, speaks of the serious damage done by the excessive rainfall in the autumn of 1900, amounting to 49½ inches from the 19th to the 25th of September, 13½ inches having fallen on September 20. Although there was no wind, many trees were uprooted, and a large number of others died after the rain had ceased and they were exposed to sunshine. The Cinchona plantations were also greatly damaged by a disastrous rainstorm which passed over the Darjeeling district on the night of September 24-25, 1899. The most recent publication of the Botanical Survey of India (vol. i. No. 13) is the report of a botanical tour in the South Lushai Hills by Lieut. A. T. Gage.

THE Royal Horticultural Society has made a new departure in the August number of its *Journal*, in the form of "Notes on Recent Research." The design is to give in each issue an abstract or short digest of the papers of botanical, and especially of horticultural, interest in the leading British, Colonial, American, and Continental botanical journals. Of these abstracts several very good samples are given in the present number, the most important being a summary of Engler's valuable paper on plant distribution in the Alps. The abstracts from current horticultural periodicals occupy nearly fifty pages. Independently of these abstracts, the current number of the *Journal* is a very interesting one. Now that the phenomena of hybridisation are attracting so much attention, all students of

the subject will be grateful to the editor for giving a full translation of Herr Gregor Mendel's much-quoted paper on "Experiments in Plant Hybridisation," published in 1865 in the *Abhandlungen des naturforschenden Vereines in Brünn*. The translator, Mr. W. Bateson, in an introductory note, gives the following as the chief outcome of Mendel's experiments:—"The proof that, in certain pairs of differentiating characters, the germ-cells of a hybrid, or cross-breed, are pure, being carriers and transmitters of either the one character or the other, not both." Other articles of interest in this bulky number are:—"Woad, a Prehistoric Pigment," by Dr. Plowright; "Wild Gardens," by H. S. Leonard; "Hybrid Conifers," by Dr. Masters; and others of special interest to horticulturists.

MRS. E. S. ARMITAGE read an interesting paper on some Yorkshire earthworks, before the British Association at Bradford, which has recently been published, with illustrations, in *The Reliquary and Illustrated Archaeologist* (vol. vii. July 1901, p. 158). The author holds that the very numerous artificial hillocks usually surrounded by a ditch and bank are not British, Roman, Scandinavian, or Saxon, as they have so often been described, but that they are Norman *mottes* which were protected round the top by a stockade and crowned with a wooden tower, the *bretarke* or *donjon*. These earthen castles were the local pivots which carried the action of the central machinery of Norman organisation into the remotest parts of the kingdom and thus established feudalism all over England.

AMONG the local *fêtes* of parts of the north of France the procession of giants forms the most original and picturesque custom. Each Flemish town formerly possessed its giant, but this curious custom preserves its ancient ceremonial in only a few localities. Lille has not seen for a long time the procession of the giant "Phinar," which was vilified as was its colleague "Annéen" at Valenciennes. The festivals of giants are still preserved at Dunkirk, where "Papa-Roeusse" is the idol of the inhabitants, at Cassel, at Gand, at Brussels, and especially at Douai, where every June "Gayant" has a triumphal procession accompanied by his wife, "Marie Cageon," and their three children, "Jacquot," "Fillon" and "Bimbin." An illustrated account of this interesting survival, by Paul Diffloth, will be found in *Cosmos* (Nouv. Série, No. 867, 1901, p. 292). A further account is given by Father R. P. Delattre of a Punic necropolis near Sainte-Monique, Senegal, West Africa. The numerous objects that are figured are deposited in the museum at Saint-Louis. This important investigation deserves the attention of English archaeologists who are interested in the Mediterranean peoples.

THE Tuesday evening science lectures at the Royal Victoria Hall will commence on October 8, when Dr. A. Smith Woodward, F.R.S., will lecture on "Bone Digging in Greece." A lecture on "Photography in Natural Colours" will be given by Mr. J. W. Hinchley on October 15.

THE address delivered by M. E. T. Hamy, president of the French Association for the Advancement of Science, at the recent meeting at Ajaccio, appears in the *Revue Scientifique* of September 14. The subject is "Les debuts de l'anthropologie en France."

A LIST of second-hand electrical instruments and accessories and other apparatus required in laboratories has been sent to us by Mr. G. Bowron, Edgware Road, London. Teachers requiring efficient apparatus at a low cost, for lecture or laboratory purposes, might consult the list with advantage.

A COPY of the eighth annual report of the Church Society for the Promotion of Kindness to Animals has been received. The Society is distinguished from the generality of similar organisations in the fact that it directs attention to such subjects

as the neglect of wounded war horses, the sufferings endured by horses used for war purposes, the carelessness and sickening brutality often exhibited in the slaughtering of animals, bearing reins, cruelty to wild animals in captivity, spurious sports, "angling" for song birds, and other cruelties to animals usually regarded with indifference. Many people are willing to assist the efforts of a society working in this direction who are unable to see why animals should not be inoculated in order to extend the means of alleviating human suffering. The office of the Society is at Church House, Westminster.

WE congratulate the authorities of the Government Museum of Madras on the Catalogue of the Prehistoric Antiquities, by R. Bruce Foote, which has just been published by the Superintendent of the Government Press, Madras, for the moderate sum of eight shillings. The catalogue is terse, and is illustrated by thirty-four plates of excellent photographic reproductions of some 225 objects and one plate of ownership marks on Iron-age pottery. It appears that there is in India a decided break between the Palæolithic and Neolithic ages, but in Southern India there is no gap in time between the Neolithic and Iron-ages, the people of the latter age being doubtless direct descendants of the former. A few bronze, brass and copper implements and ornaments have been found, but apparently none as yet under circumstances showing distinctly that they preceded the Iron age. The existence of a distinct bronze or copper age may then, for the present, be regarded as quite problematic for South India. The pride of the Madras collection is unquestionably the great series brought together by the late Mr. James Wilkinson Brecks during his very successful exploration of the Nilgiri cairns and barrows while holding the post of Commissioner of those hills. A few palæoliths are figured, but no Neolithic implements or pottery. The Iron age is well illustrated in pottery and implements; one beautiful bronze vase of classical form and decorated with flutings and lotus designs deserves special mention. The archaic costumes of the figurines indicate that the art of iron smelting and working became known in India fully three thousand years ago, if not more.

THE additions to the Zoological Society's Gardens during the past week include a Rhesus Monkey (*Macacus rhesus*, ♀) from India, presented by Mr. W. Openshaw; a Green Monkey (*Cercopithecus callitrichus*) from West Africa, presented by the Rev. E. P. Green; a Collared Peccary (*Dicotyles tajaçu*, ♂), a Ring-tailed Coati (*Nasua rufa*, ♀) from South America, presented by Mr. F. G. Newton, C.M.G.; a Ring-tailed Coati (*Nasua rufa*, ♀) from South America, two Punctated Agoutis (*Dasyprocta punctata*) from Central America, presented by Captain R. G. Taylor; a Hedgehog (*Erinaceus europæus*), British, presented by Mr. C. J. Murray; a Fulvous-breasted Pied Woodpecker (*Dendrocopos macii*), two Jungle Babblers (*Crateropus canorus*), an Indian Cuckoo (*Cuculus micropterus*), a Pied Crested Cuckoo (*Coccyzus jacobinus*), a Pied Ground Thrush (*Geocichla wardi*), a Crimson-breasted Barbet (*Xantholaema haematocephala*) from British India, presented by Mr. E. W. Harper; five Vipers (*Vipera berus*), British, presented by Mr. A. Old; a White-crowned Mangabey (*Cercocebus aethiops*) from West Africa, a Pigmy Marmoset (*Hapale pygmaea*) from the Upper Amazon; a Red headed Marsh Bird (*Agelaius ruficapillus*), two Black Tanagers (*Tachyphonus melanoleucus*) from South America, a Yellow Sparrow (*Passer luteus*) from East Africa, an Indian Roller (*Coracias indica*) from India, two Gigantic Salamanders (*Megalobatrachus maximus*) from Japan, an Indian Elephant (*Elephas indicus*, ♀) from India, deposited; a Crab-eating Opossum (*Didelphys cancrivorus*) from Tropical America, purchased; an Altai Deer (*Cervus eusephanus*) born in the Gardens.